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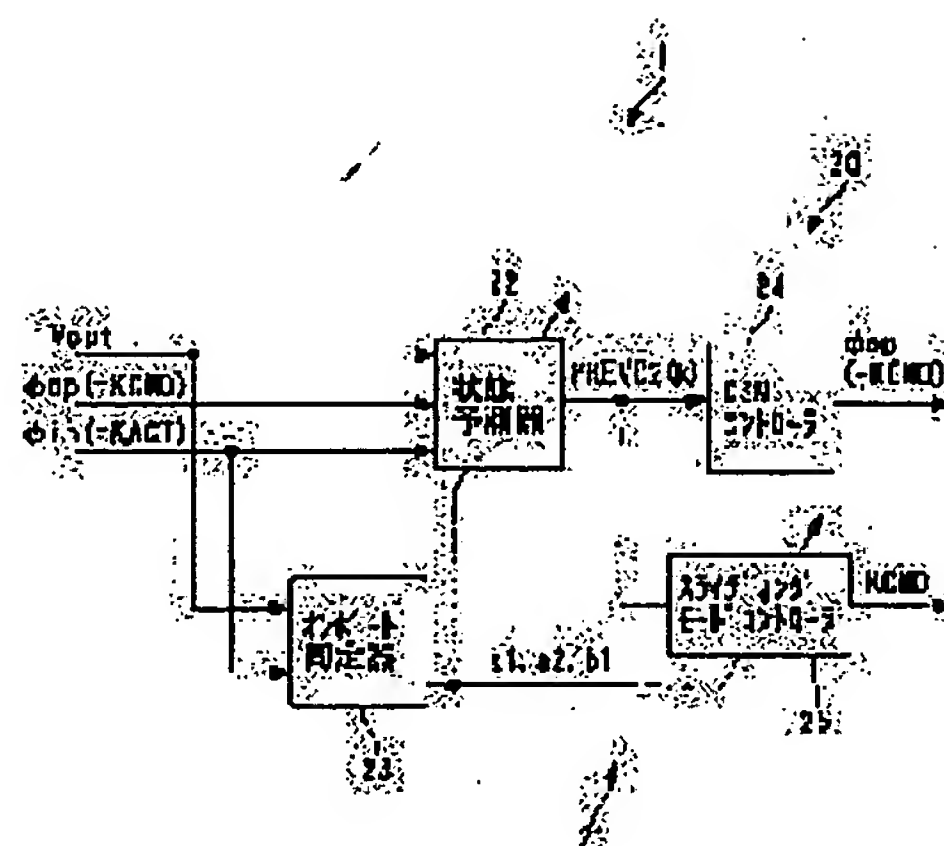
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## (54) CONTROL DEVICE

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a control device capable of improving the stability in control and the controllability by solving a problem on the disagreement in control timing between the input and output of a controlled object, even when the controlled object has the comparatively large dynamic characteristic in phase delay and waste time.

**SOLUTION:** This control device 1 comprises an estimated value calculating means (ECU2, condition estimating unit 22) for calculating an estimated value PREVO2 of an output condition of the controlled object, and a control input calculating means (ECU2, DSM controller 24) for calculating the control input (target fuel-air ratio KCMD) to the controlled object for controlling the output Vout of the controlled object in accordance with the calculated estimated value PREVO2, on the basis of one of modulation algorithm selected from  $\Delta$  modulation algorithm,  $\Delta\Sigma$  modulation algorithm and  $\Sigma\Delta$  modulation algorithm.



## LEGAL STATUS

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